

Remarks

The present response is in response to the Office Action mailed October 3, 2008, in which Claims 1-15 were rejected. The applicant has thoroughly reviewed the outstanding Office Action including the Examiner's remarks. The following remarks are believed to be fully responsive to the Office Action to render all claims patentable.

Rejection Under 35 U.S.C. §103

Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Kuwabara* (US Patent Pub. No. 2005/0057151, hereinafter referred to as "*Kuwabara*") in view of *Sirringhaus* (US Patent No. 6,808,972, hereinafter referred to as "*Sirringhaus*").

Kuwabara discloses a structure comprising a substrate (20), a first bank (21), a second bank (22), a first electrode (23), an organic compound layer (24), a second electrode (25), and an insulating film (28) in FIG. 1B. The Examiner indicates that the first bank 21 in *Kuwabara* is corresponding to a microcontact printed hydrophobic layer 11 in FIG. 4 of the present invention. According to *Kuwabara*, to form the first bank 21, the description in Paragraph [0070] is: "And then, an insulating film is formed by PCVD, sputtering, or coating over the whole surface, and patterning is carried out to form the first bank 11 (or 21 in FIG. 1B), ..., it is preferable that patterning be carried out by dry etching...". And to form the second bank 22, the description in Paragraphs [0074]-[0075] is: "Next, an insulating film is formed over a whole surface of the substrate,..., the insulating film is almost removed by anisotropic etching or etch back, and the second bank 12 that is in contact with only a side face of the first bank is formed...". In other words, the first bank 11 (or 21 in FIG. 1B) and the second bank 12 are both formed by etching, i.e. photolithography.

However, as mentioned in Paragraphs [0004]-[0006] and [0028]-[0033] of the present

invention, disadvantages of forming photolithographically defined photoresist banks in the prior art are clearly described. First, elevated temperatures are required to crosslink photoresist material and/or to smoothen the photoresist bank as a metallic layer. If a flexible substrate is used, the elevated temperatures which are increased to e.g. 200°C may induce or result in a considerable dimensional distortion of such a substrate. Second, the photoresist banks typically give rise to considerable distances between display pixels as these photoresist banks are usually applied by standard proximity lithography suffering from optical diffraction limitations. Third, lithography is a costly process. Last, the photoresist banks require an additional non-wetting plasma treatment step to prevent printed ink drops to mix with adjacent display pixels.

Referring to Paragraph [0008] of the present invention, to resolve the above-mentioned disadvantages of photolithography, an object of the present invention is to provide an electroluminescent display panel wherein said display panel further includes at least one microcontact printed hydrophobic layer between adjacent display pixels. The microcontact printed hydrophobic layer is formed by microcontact printing. The application of the microcontact printed hydrophobic layer eliminates the need for the photoresist banks to prevent mixing of the liquid ink drops with electroluminescent material and thus the need to smoothen the photoresist banks, i.e. to induce a curvature for initially sharp edges of the photoresist banks, by an elevated temperature. Microcontact printing does not require temperature elevation. In addition, the present invention states that microcontact printing can be carried out under ambient temperatures in Paragraph [0035]. In the same paragraph, microcontact printing has other advantages of increased resolution, being more economical than photolithography systems, and higher throughput production.

In summary, the first bank and the second bank of *Kuwabara* are manufactured by photolithography. In order to resolve the disadvantages of photolithography, the microcontact printed hydrophobic layer (corresponding to the first bank of *Kuwabara*) of the present invention is manufactured by microcontact printing instead of photolithography.

Sirringhaus teaches that a hydrophobic layer can be formed by microcontact printing. However, the hydrophobic layer of *Sirringhaus* does not used for separating adjacent display pixels. Accordingly, there is no motivation or suggestion to combine *Kuwabara* and *Sirringhaus*.

For the reason stated above, the applicant is of the opinion that Claim 1 is patentable over the cited references. Removal of the obviousness rejections against Claim 1 is respectfully requested. Claims 2-6 that depend directly or indirectly from Claim 1, and include various further limitations. Since *Sirringhaus* fails to compensate for the above-stated deficiencies with respect to *Kuwabara*, Claims 2-6 should be patentable for at least the reasons stated above with respect to Claim1.

The reason that Claims 7-8 are patentable is the same as the reason for Claim 1 described above, and is not repeated here.

Claims 9-14 that depend directly or indirectly from Claim 8, and include further limitations. Since *Sirringhaus* fails to compensate for the above-stated deficiencies with respect to *Kuwabara*, Claims 9-14 are also patentable for at least the reasons stated above with respect to Claim 8.

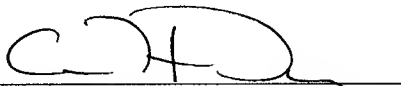
Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Kuwabara* in view of *Sirringhaus* and further in view of *Cox* (US Patent No. 6,166,439, hereinafter referred to as “*Cox*”) and *Chilkoti et al* (US Patent Pub. No. 2003/0059537, hereinafter referred to as “*Chilkoti*”).

Claim 15 is indirectly dependent on Claim 8, and includes further limitations. Since *Sirringhaus*, *Cox*, and *Chilkoti* all fail to compensate for the above-discussed deficiencies with respect to *Kuwabara*, Claim 15 is also patentable for at least the reasons stated above with respect to Claim 8.

CONCLUSION

In light of the above remarks, the applicant respectfully solicits that all pending claims are in condition of allowance and hereby respectfully request reconsideration.

Respectfully submitted,



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